

| Ref # | Hits | Search Query                                                                                                                                                                                                               | DBs                                         | Default Operator | Plurals | Time Stamp       |
|-------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------|---------|------------------|
| L1    | 0    | charles with zhan                                                                                                                                                                                                          | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2005/04/06 14:48 |
| L2    | 61   | joseph with lu                                                                                                                                                                                                             | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2005/04/06 14:56 |
| L3    | 0    | 2 and (valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2005/04/06 14:56 |
| S1    | 9254 | valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5)         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2005/04/06 14:56 |
| S2    | 103  | S1 and ((wavelet\$1 or FFT or Fourier or spectrum or spectral) with (analy\$4 or decompos\$5 or component\$1 or harmonic\$1 or coefficient\$1))                                                                            | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2004/11/06 19:35 |
| S3    | 17   | S2 and ((likelihood or probabilit\$3) with (valve\$1 or defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)))                                                                         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2004/11/06 19:34 |
| S6    | 9336 | (valve\$1) with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down) or degradation\$1) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$4 or measur\$5 or sens\$3 or judg\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2004/11/06 19:29 |
| S8    | 4815 | S6 and (((flow with rate\$1) or (process adj variable\$1) or (operat\$3 with control\$4)) with valve\$1)                                                                                                                   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2004/11/06 20:00 |
| S9    | 188  | S8 and ( ((flow adj rate) with valve) same (adjust\$5 with (open\$3 or control\$4) with valve))                                                                                                                            | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2004/11/06 20:00 |
| S10   | 0    | S9 and (valve\$1 with (likelihood or probabilit\$3) with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)))                                                                       | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | OFF     | 2004/11/06 19:34 |

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| S11 | 2   | S9 and ((wavelet\$1 or FFT or Fourier or spectrum or spectral) with (analy\$4 or decompos\$5 or component\$1 or harmonic\$1 or coefficient\$1)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 19:36 |
| S12 | 41  | S8 and ((wavelet\$1 or FFT or Fourier or spectrum or spectral) with (analy\$4 or decompos\$5 or component\$1 or harmonic\$1 or coefficient\$1)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 19:36 |
| S13 | 0   | S8 and ( (stick adj phase) with (slip adj phase))                                                                                               | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 20:02 |
| S14 | 0   | S8 and ( (stick adj phase) same (slip adj phase))                                                                                               | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 20:01 |
| S15 | 0   | S8 and ( (stick adj phase) and (slip adj phase))                                                                                                | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 20:01 |
| S16 | 8   | ( (stick adj phase) and (slip adj phase))                                                                                                       | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 20:01 |
| S17 | 12  | S8 and ( (stick) with (slip))                                                                                                                   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/11/06 20:03 |
| S18 | 286 | 702/35.ccls.                                                                                                                                    | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 14:47 |
| S19 | 0   | 702/35.ccls. and (defect\$3 same valve same indexe\$1 same (resolution or level))                                                               | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:04 |
| S20 | 5   | (defect\$3 same valve same indexe\$1 same (resolution or level))                                                                                | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/10/30 16:30 |
| S21 | 2   | "5646600".pn.                                                                                                                                   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:03 |

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| S22 | 1071 | 702/182.ccls.                                                                                                                                                                                                                | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:04 |
| S23 | 327  | 702/181.ccls.                                                                                                                                                                                                                | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:04 |
| S24 | 0    | S22 and (defect\$3 same valve same indexe\$1 same (resolution or level))                                                                                                                                                     | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:04 |
| S25 | 1    | S21 and valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:05 |
| S26 | 10   | S22 and valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:40 |
| S27 | 4    | S23 and valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:06 |
| S28 | 667  | 73/9.ccls.                                                                                                                                                                                                                   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:06 |
| S29 | 4    | S28 and valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:06 |
| S30 | 0    | charles with zhan                                                                                                                                                                                                            | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:40 |
| S31 | 663  | 340/679.ccls.                                                                                                                                                                                                                | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:40 |
| S32 | 10   | S31 and valve\$1 with (defect\$4 or fail\$4 or fault or flaw\$1 or malfunction or breakdown or (break adj down)) with (detect\$3 or identif\$7 or monitor\$3 or diagnos\$\$4 or measur\$5 or sens\$3 or analy\$4 or judg\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/04/06 12:41 |